Future NAS Information System Security (ISS) Requirements

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Our Experiences Conducting NAS Certification and Authorization (C&A)

- **Team Of Security Specialists**

- **Knowledgeable in C&A, Security Policy, etc.**

- **Familiar with FAA NAS Systems**

- **Over 50 Security Certification & Authorization Package (SCAPs)* on Mission-Critical NAS Systems Written Or Reviewed (past 6 years)**

* Risk Assessment, Risk Mitigation Plan, ISS Plan, Contingency/Disaster Recovery Plan and Security Test & Evaluation (ST&E)

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Our Observations

- **The same findings surface repeatedly……….**

- **Basic ISS requirements**
  - **Identification & Authentication**   - Security Auditing
  - **Access controls**   - Malicious Code/Virus
  - **System Hardening**   - Perimeter Defense
  - **Security Policy**   - Security Training

- **FAA NAS Infrastructure lacks required System/Security Administration Support (e.g. policy, training)**

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Our Observations

- **Security Requirements are not in the original FAA Contract or requirements**

- **FAA Order 1370.82, *ISS Program*, is not a design requirement**

- **Shortcomings become apparent during C&A**

- **Remediation exceeds the budget or the schedule**

Our Observations

- **Bottom Line…**
  - **Existing current development practices address ISS during the implementation phase, resulting in:**
    - **increased cost (development and support)**
    - **reduced ISS functionality**
    - **unnecessary levels of risk.**

- **Combined with these real world dynamics…**
  - **Rising terrorist & national threats**
  - **Homeland Security Directives**
  - **Aviation Growth**
  - **Move to Open COTS Systems**

- **Opportunity for Improvement**

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Recommended Solution

- **FAA Security Architecture**

- **Use FAA ISS Requirements for Integrated Product Teams updated NAS-SR-1000 (System Requirements) for ISS requirements (Dec 2005)**

- **Agreed to by all**

- **Understood by FAA acquisition, NAS contactor developers, FAA Air Traffic Organization (ATO)**

Recommended Solution

- **ACAST Program needs to define <u>ISS REQUIREMENTS</u> (early in the life cycle for all systems)**

- **Leverage "<u>Common</u>" ISS Solutions across ACAST systems**

- **Create the <u>Security Infrastructure</u> upon which future NAS Systems will exist**

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